

making a home for wildlife...

PRESCRIBED BURN



benefits

For thousands of years, wildfires kept trees out of Iowa's tall grass prairies, releasing nutrients that fed a lush, new growth of grasses and flowers. Iowa's native tall grass prairies and plant communities developed under fiery conditions and are part of a fire-dependent landscape.

By reintroducing fire, we recreate a process that maintains Iowa's fertile soils in grasses and wild flowers.

Since the early 1970s, the Iowa Department of Natural Resources has used prescribed burns as a management tool to:

- Control undesirable vegetation (e.g. brome, invasive species, trees and brush, etc.)
- Manage native plant diversity and composition
- Prepare sites for harvesting, planting, or seeding
- Enhance seed production
- Control plant disease
- Reduce wildfire hazards
- Remove slash and debris
- Release nutrients back into the soil
- Improve wildlife habitat



A controlled fire can keep woody shrubs and trees at bay, while rejuvenating grasses and wildflowers that benefit grassland wildlife species.

definitions

prescribed burn — a way to improve wildlife habitat or meet some other specific land management goal by purposely burning an area. Unlike campfires or wildfires, a prescribed burn is used to manage an area such as forest, native prairie, pasture, or wildlife land and is done under specific conditions, with appropriate safety precautions. A burn plan can help landowners hold a prescribed burn safely.

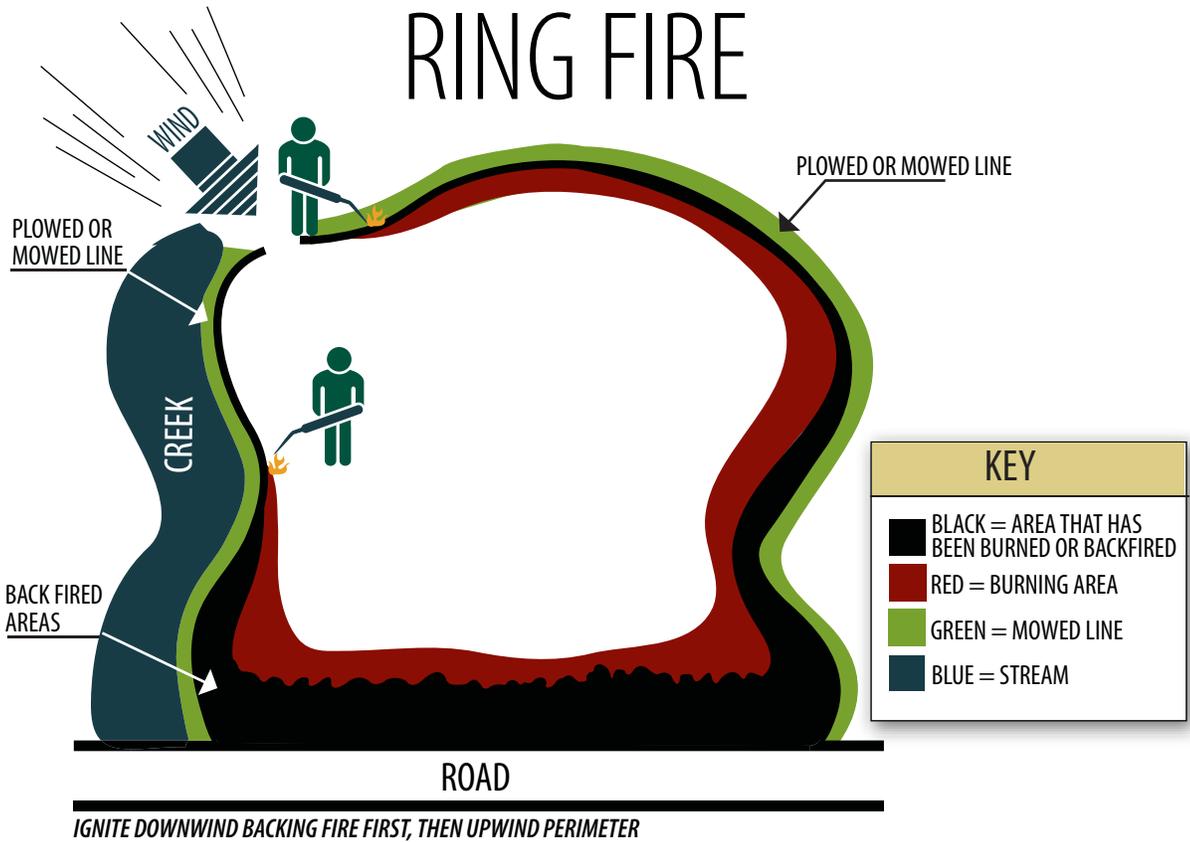
purpose

Fire has historically maintained grassland habitats, nourishing the growth of lush grasses and wildflowers. Today, burning native grasses can enhance habitat that benefits declining grassland species – like the ring-necked pheasant, the regal fritillary butterfly and Henslow's sparrow.



RING FIRE

Fires can be kept under control by choosing natural barriers such as roads or streams for boundaries, mowing the perimeter, and setting a backfire downwind before starting the main fire upwind.



developing a burn plan

Before you burn, make sure you have a burn plan that focuses on

1) the objectives of your burn and 2) the prescribed fire plan and safety.

A typical burn plan contains the following details:

- Seasonal Timing (based on your management goals)
- Weather conditions such as humidity, wind speed, direction and temperature for the day of the burn
 - Wind speed should be light, predictable and about 5 to 15 mph
 - Relative humidity should be 20 to 50 percent
 - Temperature should be between 40 and 70 degrees.
- Vegetation fuel types and conditions
- Fire breaks
- Ignition plan
- Smoke management to minimize downwind exposure
- Potential hazards
- Contingency plans
- Equipment and personnel needs
 - Backpack Sprayers
 - Flappers
 - Drip Torches
 - Fire resistant clothing (natural fibers)
 - Leather Boots
 - ATV with water sprayer (preferred for most sites)
- Public notification
 - Local fire department
 - Neighboring landowners
 - County officials
 - DNR Environmental Services field offices (Courtesy only — see *For More Information* on back page.)
 - Emergency numbers

Right: Mowed or natural firebreaks create a barrier for the fire, preventing it from jumping into an area that should remain unburned. Setting a backfire into the wind next to a firebreak depletes the fuel in an even larger area, preventing the main fire from getting out of control.

You will need federal coordination and approval for burns on land that is enrolled in the Conservation or Wetlands Reserve Program (CRP or WRP) or other federal programs. Please check with your local U.S.D.A. Natural Resources Conservation Service office before proceeding.

Contact your local NRCS field office or a DNR wildlife biologist for a list of people who can write burn plans or conduct the actual prescribed burns. Equipment may be available from your local NRCS, DNR or county conservation board office, or from a Pheasants Forever Chapter.

timing

Burn timing will vary according to your management goals.

- To control brome and other cool-season grasses, burn in the late spring.
- To encourage native forbs, burn in the fall.
- For new plantings, burn prior to planting (if you're not mowing or haying), and then wait until three to five years after the planting year.
- In established prairie or oak savanna, alternate burning between fall and spring. You can burn every three to seven years based on the health and needs of the prairie or woodland.



firebreaks

Find or create firebreaks. A firebreak is a space free of flammable material that stops or slows a fire from spreading beyond the burn area.

Look for firebreaks that are already present, such as streams, permanent roads, and crop-ground. Firebreaks should completely surround the burn unit. Also, make a note of wood fence posts, utility poles, etc. that may need protection by a separate firebreak.

You may need to create your own firebreaks by mowing and/or by making a backfire. Backfires are set up against the wind so that they burn more slowly and remove more vegetation and litter.

When mowing, use the following guidelines:

1. *Grass/Prairie understory*

- Mow firebreaks and rake any thatch (dried plant material) off of the fire-line.

- Mowing height should be as short as possible. A good rule of thumb is to make your break three times as wide as the height of the fuels (if your prairie grasses are 4 feet tall, your mowed break should be 12 feet wide.)
- ### 2. *Leaf litter understory (Oak woodlands/savanna):*
- Clear trees and shrubs within the firebreak area and flush-cut any stumps.
 - Drag slash and dead logs 20 to 50 feet into the burn unit.
 - Cut any standing dead snags within 50 feet of the firebreak to prevent them from throwing sparks over the firebreak.
 - Rake or blow leaf litter off of the break to expose mineral soils. This break can be at minimum three to four feet wide, although an ATV width (five or six feet) can make the burn more convenient.



maintenance

Generally, prescribed burning should be carried out every 3 to 7 years. After the burn, look at the burn location to see if your objectives were met. For example, if your goal was to get rid of exotics, were the exotic species reduced? Are the grasses healthier? Are the flowers blooming more vigorously?

Check the site every year to re-evaluate the grasses and shrubs. When vegetation is no longer robust and undesirable species are becoming more prominent, it's probably time to burn again.

for more information

Burn weather forecasts:
<http://www.netexpress.net/~okeefe/>

Managing Private Lands with contact information for wildlife and private lands biologists: <http://www.iowadnr.com/wildlife/files/privatelands.html>

Attracting Iowa Wildlife — A Guide for Providing Habitat on Private Lands. <http://www.iowadnr.com/wildlife/files/plhabitatguide.html>

DNR Environmental Services field offices: <http://www.iowadnr.com/fo/index.html>

DNR Open Burning information: <http://www.iowadnr.com/air/citizen/burn/burn.html>

“The benefit of fire is a prairie reborn. Each day we are amazed at the diversity of grasses and wildflowers that appear from the ashes.

Weeks following our burn, giant prairie penstemon were blooming under the sumac skeletons, and

tiny skullcaps were peaking out beside charred red cedar. We have been rewarded with an ever-changing landscape and discovering insects, butterflies, birds and wildlife that have also found a prairie reborn.”

— Pam & Mark Pierce



prescribed burn calendar

12 Months Prior to Burn

- Develop Prescribed Burn Plan based on your objective(s)
- Mow firebreaks bi-monthly during growing season before burn
- Remove dead snags that are within 20 feet of firebreaks.
- Scout for hazards to burn crew (poison ivy, old fence wire, etc.)
- Clear vegetation around access points for vehicle entry to burn area

3 Months Prior to Burn

- Notify nearby landowners/neighbors of your intent to conduct a prescribed burn
- Arrange for crew and equipment needed

1 Month Prior to Burn*

- Obtain necessary permits (Linn and Polk counties, or local ordinances)

1-2 Days Prior to Burn

- Check weather forecast for day of burn
- Remind adjacent landowners/neighbors of prescribed burn
- Drive around site to check firebreaks and access points
- Test to insure that all burn equipment is functioning properly
- Notify local fire department
- Courtesy call to DNR Environmental Services field offices

Day of Burn

- Check weather forecast
- Review pre-burn checklist with burn crew prior to ignition

* Contact the DNR Air Quality Bureau for burns conducted within the cities of Cedar Rapids, Marion, Hiawatha, Council Bluffs, Carter Lake, Des Moines, West Des Moines, Clive, Windsor Heights, Urbandale, and Pleasant Hill.

